UNITED STATES PATENT AND TRADEMARK OFFICE

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10/054,702	10/23/2001	Frank M. Zizzamia	098056/00135	5389

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KRAMER LEVIN NAFTALIS & FRANKEL LLP
INTELLECTUAL PROPERTY DEPARTMENT
1177 AVENUE OF THE AMERICAS
NEW YORK, NY 10036

EXAMINER
COBANOGLU, DILEK B

ART UNIT	PAPER NUMBER
3626	

NOTIFICATION DATE	DELIVERY MODE
06/02/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

klpatent@kramerlevin.com

	Application No.	Applicant(s)
	10/054,702	ZIZZAMIA ET AL.
Office Action Summary	Examiner	Art Unit	
	DILEK B. COBANOGLU	3626	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>06 March 2008</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1 and 3-34</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1 and 3-34</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>3/4/2003</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

03/06/2008 has been entered.

Response to Affidavit

2.   Applicant has submitted a declaration to refute the rejection in the previous office

action for the references that have been used being non-obvious. Examiner rejected

claims under the rejection of 35 U.S.C. 103(a) over the combination of references Apte

et al. (5,970,464; hereinafter Apte), DeTore et al. (4,975,840; hereinafter DeTore) and

Zizzamia (5,893,072; hereinafter Zizzamia).

        A.   The declaration under 37 C.F.R. § 1.132 filed on 03/06/2008 is insufficient

        to overcome rejection of claims 1, 3-34 based upon Apte, DeTore and Zizzamia

        references applied under 35 U.S.C. 103(a) the for the following reasons:

                i.   It refers only to the system described in the above referenced

                application and not to the individual claims of the application. As such the

                declaration does not show that the objective evidence of nonobviousness

                is commensurate in scope with the claims. In this case, the Applicant

                Frank M. Zizzamia states that "A paradigmatic example of the success of

the claimed invention is that of a prominent Northeastern United States mutual insurance company (to be termed "MIC" for convenience). MIC is a multi-line property and casualty insurer with a commercial book of business in Business Owners Package (BOP), Commercial Automobile (CA), and Workers' Compensation (WC) insurance. In late 2002 Deloitte began initial discussions with MIC regarding providing it with a commercial insurance predictive model, of the type described in the above-identified patent application. This model would assign a score to each and every policy marketed to a proposed insured. Such a score is based on collecting various data, and once such data is procured, extracting a multivariate predictive statistical model from the data. The score can be a mathematical formula having a y-intercept and a series of terms comprising co-efficients and variables, as described in the present application at ¶¶ [0086] and [0087]."

ii.   It states that the claimed subject matter solved a problem that was long standing in the art. However, there is no showing that others of ordinary skill in the art were working on the problem and if so, for how long. In addition, there is no evidence that if persons skilled in the art who were presumably working on the problem knew of the teachings of the above cited references, they would still be unable to solve the problem. See MPEP § 716.04.

B.   MPEP Section 716.01 states the following:

I. Objective evidence which must be factually supported by an appropriate affidavit or declaration to be of probative value includes evidence of unexpected results, commercial success, solution of a long-felt need, inoperability of the prior art, invention before the date of the reference, and allegations that the author(s) of the prior art derived the disclosed subject matter from the applicant. See, for example, In re De Blauwe, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984) ("It is well settled that unexpected results must be established by factual evidence."

II. The arguments of counsel cannot take the place of evidence in the record. In re Schulze, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). Examples of attorney statements which are not evidence and which must be supported by an appropriate affidavit or declaration include statements regarding unexpected results, commercial success, solution of a long-felt need, inoperability of the prior art, invention before the date of the reference, and allegations that the author(s) of the prior art derived the disclosed subject matter from the applicant.

In this case, the Applicant Frank M. Zizzamia states that "the facts are submitted as objective evidence of non-obviousness under MPEP 716.01(a)." Applicant fails to provide any evidence showing unexpected results, commercial success, solution of a long-felt need and inoperability of the prior art.

C.   In view of the foregoing, when all of the evidence is considered, the totality of the rebuttal evidence of nonobviousness fails to outweigh the evidence of obviousness.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1 and 3-34 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Apte et al. (5,970,464; hereinafter Apte), in view of DeTore et al. (4,975,840;

hereinafter DeTore) and further in view of Zizzamia (5,893,072; hereinafter Zizzamia).

        A.   As per currently amended claim 1, Apte discloses a method for predicting

        the profitability of a <u>commercial </u>insurance policy comprising:

                i.   gathering policyholder data including premium and loss data for

                storing in a database (Apte: abstract; col. 1, lines 53-60; col. 9, lines 29-

                36; Fig. 1-14);

                ii.   identifying external data sources directed to at least one of

                business level data and household demographics data, the external data

                sources having a plurality of external variables to be used in predicting the

                profitability of the insurance policy (Apte: col. 3, lines 5-19; Fig. 1-14);

                iii.   associating the external variables with the policyholder data (Apte:

                abstract; col. 1, lines 53-67; Fig. 1-14); and

                iv.   creating <u>a score based </u>an individually weighted statistical model

                based on said individual external predictive variables<u>, wherein said</u>

evaluating external variables includes evaluating the utility of creating new

variables from the external variables and creating any appropriate new

variables, and wherein said score is a function of at least all of the

predictive external variables and any predictive new variables. (Apte:

abstract; col. 3, lines 44-53; col. 6, line 44- col. 7, line 17; Fig. 1-14)

Apte, however, fails to expressly disclose a method for predicting

the profitability of an insurance policy comprising the steps of:

(1)   evaluating the associated external variables against the

policyholder data to identify the individual external variables

predictive of the insurance policy's profitability; and

(2)   creating a multivariate statistical model.

Nevertheless, this feature is old and well known in the art, as

evidenced by DeTore and Zizzamia. In particular, DeTore and

Zizzamia disclose a method for predicting the profitability of an

insurance policy comprising the steps of:

(1)   evaluating the associated external variables against the

policyholder data to identify the individual external variables

predictive of the insurance policy's profitability (DeTore: abstract;

col. 7, lines 9-23; col. 15, lines 42-59; Fig. 1-12); and

        (2)   creating a multivariate_statistical model (Zizzamia: col. 9,

lines 18-21).

One of ordinary skill would have found it obvious at the time of the

invention to combine the teachings of DeTore with the combined

teachings of Apte and Zizzamia with the motivation of providing a

method and apparatus for evaluating the insurability of a potentially

insurable risk (DeTore: col. 1, lines 55-58).

One of ordinary skill would have found it obvious at the time of the

invention to combine the teachings of Zizzamia with the combined

teachings of Apte and Zizzamia with the motivation of providing a

method and apparatus for evaluating the insurability of a potentially

insurable risk (DeTore: col. 1, lines 55-58).

B.   As per currently amended claim 3, Apte fails to expressly disclose the

method of claim 1 further comprising creating individual records in the database

for each policyholder and populating each individual record with premium and

loss data, business name, address and zip code for each policyholder and the

associated external variables.

Nevertheless, this feature is old and well known in the art, as evidenced

by DeTore. In particular, DeTore discloses the method of claim 1 further

comprising the steps of creating individual records in the database for

each policyholder and populating each individual record with premium and

loss data, business name, address and zip code for each policyholder and the associated external variables (DeTore: abstract; col. 4, lines 21-35; col. 17, line 62-col. 19, line 13; Fig. 1-12).

One of ordinary skill would have found it obvious at the time of the invention to combine the teachings of DeTore with the combined teachings of Apte and Zizzamia with the motivation of providing a method and apparatus for evaluating the insurability of a potentially insurable risk (DeTore: col. 1, lines 55-58).

C.   As per currently amended claim 4, Apte fails to expressly disclose the method of claim 1 further comprising associating at least one individual external variable with the individual records based on a unique data key associated with at least one external data source.

Nevertheless, this feature is old and well known in the art, as evidenced by DeTore. In particular, DeTore discloses the method of claim 1 further comprising the step of associating at least one individual external variable with the individual records based on a unique data key associated with at least one external data source (DeTore: abstract; col. 4, lines 36-col. 6, line 3; Fig. 1-12).

One of ordinary skill would have found it obvious at the time of the invention to combine the teachings of DeTore with the combined teachings of Apte and Zizzamia with the motivation of providing a method

and apparatus for evaluating the insurability of a potentially insurable risk

(DeTore: col. 1, lines 55-58).

D.   As per currently amended claim 5, Apte fails to expressly disclose the

method of claim 1 further comprising normalizing the policyholder data in the

database.

Nevertheless, this feature is old and well known in the art, as evidenced

by DeTore. In particular, DeTore discloses the method of claim 1 further

comprising the step of normalizing the policyholder data in the database

(DeTore: abstract; col. 15, lines 42-59; Fig. 1-12).

One of ordinary skill would have found it obvious at the time of the

invention to combine the teachings of DeTore with the combined

teachings of Apte and Zizzamia with the motivation of providing a method

and apparatus for evaluating the insurability of a potentially insurable risk

(DeTore: col. 1, lines 55-58).

E.   As per currently amended claim 6, Apte discloses the method of claim 5

wherein said normalizing further comprises premium manualization, loss trending

and loss capping (Apte: abstract; Fig. 1-14; Examiner also notes Applicant's

admission in the background of the invention of the present application

(10/054,702) that premium manualization is a commonly practiced technique).

F.   As per original claim 7, Apte discloses the method of claim 1 wherein the

external data sources include external variables for geographic factors (Apte:

abstract; col. 3, lines 6-col. 4, line 54; Fig. 1-14). The Examiner has noted insofar

as claim 7 recites "include external variables for at least one of geographic

factors, business stability and weather patterns," geographic factors has been

recited.

G.   As per currently amended claim 8,

Apte fails to expressly disclose the method of claim 1 wherein <u>said</u>

evaluating the external variables further comprises examining the external

variables for cross-correlation against one another in order to eliminate

repetitive external variables.

Nevertheless, this feature is old and well known in the art, as evidenced

by DeTore. In particular, DeTore discloses the method of claim 1 wherein

the step of evaluating the external variables further comprises the step of

examining the external variables for cross-correlation against one another

in order to eliminate repetitive external variables (DeTore: abstract; col.

15, lines 42-59; Fig. 1-12).

One of ordinary skill would have found it obvious at the time of the

invention to combine the teachings of DeTore with the combined

teachings of Apte and Zizzamia with the motivation of providing a method

and apparatus for evaluating the insurability of a potentially insurable risk

(DeTore: col. 1, lines 55-58).

H.   As per currently amended claim 9, Apte discloses the method of claim 1

further comprising dividing the data in the database into a validation data set for

evaluating the predictiveness of the statistical model (Apte: abstract; col. 3, line 60-col. 4, line 1; Fig. 1-14).

Apte, however, fails to expressly disclose the method of claim 1 further comprising dividing the data in the database into a training data set for developing the statistical model, and a testing data set for refining the statistical model.

Nevertheless, this feature is old and well known in the art, as evidenced by DeTore. In particular, DeTore discloses the method of claim 1 further comprising the step of dividing the data in the database into a training data set for developing the statistical model, and a testing data set for refining the statistical model (DeTore: abstract; col. 6, lines 10-21; Fig. 1-12). One of ordinary skill would have found it obvious at the time of the invention to combine the teachings of DeTore with the combined teachings of Apte and Zizzamia with the motivation of providing a method and apparatus for evaluating the insurability of a potentially insurable risk (DeTore: col. 1, lines 55-58).

I.   As per currently amended claim 10, Apte discloses the method of claim 1 wherein identifying the external variables predictive of an insurance policy's profitability further includes:

i.   calculating for each policyholder the loss ratio based on the normalized policyholder data (Apte: abstract; col. 1, lines 53-60; col. 9, lines 29-36; Fig. 1-14);

ii.   defining a subgroup from the policyholder data (Apte: abstract; col. 1, lines 53-60; Fig. 1-12);

iii.   calculating a cumulative loss ratio for the subgroup (Apte: abstract; col. 9, lines 29-43; Fig. 1-14); and

iv.   performing a statistical analysis to identify statistical relationships between individual external variables and the cumulative loss ratio for the subgroup (Apte: abstract; col. 9, lines 29-43; Fig. 1-14).

Apte, however, fails to expressly disclose the method of claim 1 wherein the step of identifying the external variables predictive of an insurance policy's profitability further includes the steps of:

(1)   normalizing the policyholder data.

Nevertheless, this feature is old and well known in the art, as evidenced by DeTore. In particular, DeTore discloses the method of claim 1 wherein the step of identifying the external variables predictive of an insurance policy's profitability further includes the steps of: normalizing the policyholder data (DeTore: abstract; col. 15, lines 42-59; Fig. 1-12).

One of ordinary skill would have found it obvious at the time of the invention to combine the teachings of DeTore with the combined teachings of Apte and Zizzamia with the motivation of providing a method and apparatus for evaluating the insurability of a potentially insurable risk (DeTore: col. 1, lines 55-58).

J.   As per original claim 11,

Apte fails to expressly disclose the method of claim 10 wherein the identified predictive external variables are examined for cross-correlations against one another.

Nevertheless, this feature is old and well known in the art, as evidenced by DeTore. In particular, DeTore discloses the method of claim 10 wherein the identified predictive external variables are examined for cross-correlations against one another (DeTore: abstract; col. 15, lines 42-59; Fig. 1-12).

One of ordinary skill would have found it obvious at the time of the invention to combine the teachings of DeTore with the combined teachings of Apte and Zizzamia with the motivation of providing a method and apparatus for evaluating the insurability of a potentially insurable risk (DeTore: col. 1, lines 55-58).

K.   As per original claim 12,

Apte fails to expressly disclose the method of claim 10 wherein the statistical model is created using multivariate methods to produce coefficients for each of the external predictive variables and the coefficients represent the contribution of the each of the external predictive variables to an overall score (DeTore: abstract; col. 4, lines 36-53; Fig. 1-12).

Nevertheless, this feature is old and well known in the art, as evidenced by DeTore. In particular, DeTore discloses the method of claim 10 wherein the statistical model is created using multivariate methods to produce coefficients for each of the external predictive variables and the coefficients represent the contribution of the each of the external predictive variables to an overall score (DeTore: abstract; col. 4, lines 36-53; Fig. 1-12).

One of ordinary skill would have found it obvious at the time of the invention to combine the teachings of DeTore with the combined teachings of Apte and Zizzamia with the motivation of providing a method and apparatus for evaluating the insurability of a potentially insurable risk (DeTore: col. 1, lines 55-58).

L.   As per currently amended claim 13, Apte discloses a method for creating a statistical model that generates a score representative of the profitability of an insurance policy for at least one of a new policyholder and an existing policyholder, comprising:

i.   gathering historical policyholder data including loss and premium data (Apte: abstract; col. 1, lines 53-60; col. 9, lines 29-36; Fig. 1-14);

ii.   identifying external data sources having a plurality of external variables, each external variable having a value (Apte: col. 3, lines 5-19; Fig. 1-14);

iii.   calculating a loss ratio for each policyholder in the database based

on the working data (Apte: abstract; col. 1, lines 53-60; col. 9, lines 29-36;

Fig. 1-14);

iv.   calculating a cumulative loss ratio for a defined group of

policyholders in the database (Apte: abstract; col. 1, lines 53-60; col. 9,

lines 29-36; Fig. 1-14); and

v.   an individually weighted statistical model (Apte: col. 6, lines 46-60).

Apte, however, fails to expressly disclose a method for

creating a statistical model that generates a score

representative of the profitability of an insurance policy for at

least one of a new policyholder and an existing policyholder,

comprising the steps of:

(a)   applying actuarial transformation to the policyholder

data to generate working data;

(b)   performing a statistical analysis that investigates the

relationship of each external variable and the cumulative

loss ratio for the defined group to identify external variables

that are predictive of the profitability of the insurance policy;

(c)   utilizing the predictive external variables identified in

the previous step to develop a statistical model that

generates a score predictive of the profitability of the

insurance policy, wherein said performing a statistical

analysis includes evaluating the utility of creating new

variables from the external variables and creating any

appropriate new variables, and wherein said score is a

function of at least all of the predictive external variables and

any predictive new variables and

(d)   a multivariate statistical model.

Nevertheless, this feature is old and well known in the art, as

evidenced by DeTore and Zizzamia. In particular, DeTore

and Zizzamia disclose a method for creating a statistical

model that generates a score representative of the

profitability of an insurance policy for at least one of a new

policyholder and an existing policyholder, comprising the

steps of:

(a)   applying actuarial transformation to the policyholder

data to generate working data (DeTore: abstract; col. 16,

lines 20-34; Fig. 1-12);

(b)   performing a statistical analysis that investigates the

relationship of each external variable and the cumulative

loss ratio for the defined group to identify external variables

that are predictive of the profitability of the insurance policy

(DeTore: abstract; col. 4, lines 36-53; Fig. 1-12);

(c)   utilizing the predictive external variables identified in the previous step to develop a statistical model that generates a score predictive of the profitability of the insurance policy, wherein said performing a statistical analysis includes evaluating the utility of creating new variables from the external variables and creating any appropriate new variables, and wherein said score is a function of at least all of the predictive external variables and any predictive new variables (DeTore: abstract; col. 4, lines 36-53; Fig. 1-12);

(d)   a multivariate statistical model (Zizzamia: col. 9, lines 18-21).

One of ordinary skill would have found it obvious at the time of the invention to combine the teachings of DeTore with the combined teachings of Apte and Zizzamia with the motivation of providing a method and apparatus for evaluating the insurability of a potentially insurable risk (DeTore: col. 1, lines 55-58).

One of ordinary skill would have found it obvious at the time of the invention to combine the teachings of Zizzamia with the combined teachings of Apte and Zizzamia with the motivation of providing a method and apparatus for

evaluating the insurability of a potentially insurable risk

(DeTore: col. 1, lines 55-58).

M.   As per original claim 14,

Apte fails to expressly disclose the method of claim 13 wherein the

statistical model is used to score at least one of an existing policyholder

and a new policyholder in order to determine the premium for a

commercial insurance policy.

Nevertheless, this feature is old and well known in the art, as evidenced

by DeTore. In particular, DeTore discloses the method of claim 13 wherein

the statistical model is used to score at least one of an existing

policyholder and a new policyholder in order to determine the premium for

a commercial insurance policy (DeTore: abstract; col. 4, lines 36-53; Fig.

1-12).

One of ordinary skill would have found it obvious at the time of the

invention to combine the teachings of DeTore with the combined

teachings of Apte and Zizzamia with the motivation of providing a method

and apparatus for evaluating the insurability of a potentially insurable risk

(DeTore: col. 1, lines 55-58).

N.   As per currently amended claim 15, Apte discloses the method of claim 13

further comprising manualizing the premium data, modifying long tail losses and

capping large losses (Apte: abstract; Fig. 1-14; Examiner also notes Applicant's

admission in the background of the invention of the present application

(10/054,702) that premium manualization is a commonly practiced technique).

O.   As per currently amended 16,

Apte fails to expressly disclose the method of claim 13 further comprising

binning together similar values of an external variable having multiple

values.

Nevertheless, this feature is old and well known in the art, as evidenced

by DeTore. In particular, DeTore discloses the method of claim 13 further

comprising binning together similar values of an external variable having

multiple values (DeTore: abstract; col. 15, lines 42-59; Fig. 1-12).

One of ordinary skill would have found it obvious at the time of the

invention to combine the teachings of DeTore with the combined

teachings of Apte and Zizzamia with the motivation of providing a method

and apparatus for evaluating the insurability of a potentially insurable risk

(DeTore: col. 1, lines 55-58).

P.   Currently amended claim 17 substantially repeats the same limitations of

claim 8 and is therefore, rejected for the same reason given for claim 8, and

incorporated herein.

Q.   Currently amended claim 18 substantially repeats the same limitations of

claim 9 and is therefore, rejected for the same reason given for claim 9, and

incorporated herein.

R.   Currently amended claim 19 substantially repeats the same limitations of

claim 12 and is therefore, rejected for the same reason given for claim 12, and

incorporated herein.

S.   Currently amended claim 20 substantially repeats the same limitations of

claim 1 and is therefore, rejected for the same reason given for claim 1, and

incorporated herein.

T.   Original claim 21 substantially repeats the same limitations of claim 12

and is therefore, rejected for the same reason given for claim 12, and

incorporated herein.

U.   As per original claim 22,

      Apte fails to expressly disclose the system of claim 21 wherein the

      multivariate method includes at least one of multiple regression.

      Nevertheless, this feature is old and well known in the art, as evidenced

      by DeTore. In particular, DeTore discloses the system of claim 21 wherein

      the multivariate method includes at least one of multiple regression

      (DeTore: abstract; col. 5, lines 6-18; Fig. 1-12) (The Examiner has noted

      insofar as claim 22 recites "includes at least one of multiple regression

      and generalized linear modeling," multiple regression has been recited.)

      One of ordinary skill would have found it obvious at the time of the

      invention to combine the teachings of DeTore with the combined

      teachings of Apte and Zizzamia with the motivation of providing a method

and apparatus for evaluating the insurability of a potentially insurable risk

(DeTore: col. 1, lines 55-58).

V.   Currently amended claim 23 substantially repeats the same limitations of

claims 1 and 12 and is therefore, rejected for the same reason given for claims 1

and 12, and incorporated herein.

W.   As per previously presented claim 24,

Apte fails to expressly disclose the system of claim 23 wherein the means

for performing the statistical method comprises a software application that

includes algorithms for performing at least one of multivariate statistical

methods.

Nevertheless, this feature is old and well known in the art, as evidenced

by DeTore. In particular, DeTore discloses the system of claim 23 wherein

the means for performing a statistical method comprises a software

application that includes algorithms for performing at least one of

multivariate statistical methods (DeTore: abstract; col. 4, lines 36-53; Fig.

1-12) (The Examiner has noted insofar as claim 24 recites "includes

algorithms for performing at least one of multivariate statistical methods,

clustering methods, decision tree techniques and neural network

techniques," multivariate statistical methods has been recited.).

One of ordinary skill would have found it obvious at the time of the

invention to combine the teachings of DeTore with the combined

teachings of Apte and Zizzamia with the motivation of providing a method

and apparatus for evaluating the insurability of a potentially insurable risk

(DeTore: col. 1, lines 55-58).

X.   As per currently amended claim 25, Apte discloses a method of

performing risk-based pricing of an insurance policy comprising the steps of:

(1) evaluating the risk associated with issuing the insurance policy based on a

profitability score derived from an individually weighted multivariate statistical

model generated with historical policyholder premium and loss data and external

predictive variables identified from external data sources independent of internal

policy holder data of an insurance company issuing the insurance policy, wherein

said identified external predictive variables include any predictive new variables

created from external variables identified from said external data sources, and

wherein said score is a function of at least all of the external predictive variables

(Apte: abstract; col. 1, lines 53-60; col. 9, lines 29-36; col. 6, lines 45-60; Fig. 1-

14).

Apte, however, fails to expressly disclose a method of performing risk-

based pricing of an insurance policy comprising the steps of:

(2) receiving a request for a price on an insurance policy; and (3)

evaluating risk using a multivariate statistical model.

Nevertheless, this feature is old and well known in the art, as evidenced

by DeTore and Zizzamia. In particular, DeTore and Zizzamia disclose a

method of performing risk-based pricing of an insurance policy comprising

the steps of: (2) receiving a request for a price on an insurance policy

(DeTore: abstract; col. 17, line 62-col. 19, line 5; Fig. 1-12); (3) evaluating

risk using a <u>multivariate</u> statistical model (Zizzamia: col. 9, lines 18-

21).

One of ordinary skill would have found it obvious at the time of the

invention to combine the teachings of DeTore with the combined

teachings of Apte and Zizzamia with the motivation of providing a method

and apparatus for evaluating the insurability of a potentially insurable risk

(DeTore: col. 1, lines 55-58).

One of ordinary skill would have found it obvious at the time of the

invention to combine the teachings of Zizzamia with the combined

teachings of Apte and Zizzamia with the motivation of providing a method

and apparatus for evaluating the insurability of a potentially insurable risk

(DeTore: col. 1, lines 55-58).

Y.   Original claim 26 substantially repeats the same limitations of claim 7 and

is therefore, rejected for the same reason given for claim 7, and incorporated

herein.

Z.   Original claim 27 substantially repeats the same limitations of claim 3 and

is therefore, rejected for the same reason given for claim 3, and incorporated

herein.

AA.   Currently amended claim 28 substantially repeats the same limitations of

claim 8 and is therefore, rejected for the same reason given for claim 8, and

incorporated herein.

BB.   Currently amended claim 29 substantially repeats the same limitations of claim 10 and is therefore, rejected for the same reason given for claim 10, and incorporated herein.

CC.   Original claim 30 substantially repeats the same limitations of claim 8 and is therefore, rejected for the same reason given for claim 8, and incorporated herein.

DD.   Original claim 31 substantially repeats the same limitations of claim 12 and is therefore, rejected for the same reason given for claim 12, and incorporated herein.

EE.   Original claim 32 substantially repeats the same limitations of claim 9 and is therefore, rejected for the same reason given for claim 9, and incorporated herein.

FF.   Currently amended claim 33 substantially repeats the same limitations of claims 13 and 25 and is therefore, rejected for the same reason given for claims 13 and 25, and incorporated herein.

GG.   Original claim 34 substantially repeats the same limitations of claim 1 and is therefore, rejected for the same reason given for claim 1, and incorporated herein.

Response to Arguments

5.   Applicant's arguments filed 03/06/208 have been fully considered but they are
not persuasive. Applicant's arguments will be addressed hereinbelow in the order in
which they appear.

    A.   In response to applicant's arguments against the references individually,
    one cannot show nonobviousness by attacking references individually where the
    rejections are based on combinations of references. See *In re Keller*, 642
    F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231
    USPQ 375 (Fed. Cir. 1986). Applicant argues that Apte does not teach "an
    independently weighted multivariate statistical model or a score based thereon"
    on page 15, and; Applicant argues that DeTore does not teach "external data",
    "creation of a multivariate statistical model, or generating a score based thereon";
    Examiner respectfully submits that Zizzamia teaches "creating a multivariate
    model", in particular "The predicter 32 must produce a predicted loss ratio given
    a set of classification plan variable values. Multivariate statistical modeling curve
    fitting techniques provide a method for creating such a predicter" in col. 9, lines
    18-21. Apte teaches "an external data" (including internal data and external data)
    [emphasis added.] in col. 3, lines 5-19; and Apte teaches "An insurance
    company's historical policy and claims data typically resides on enterprise level
    databases, in transaction format, typically on a quarterly basis. Several quarters
    worth of data, usually sixteen quarters or more, is first extracted, for a given
    business region of interest, such as a state. Since policy and claims data usually

reside separately, the extracts are first joined so that records are available, per quarter, on a joint policy-claim basis. From this data, which usually will be in the order of a few gigabytes, a statistically valid sample is extracted for the data mining run." (creation of statistical model) in col. 3, lines 44-53. Moreover, Examiner respectfully submits that a broad, yet reasonable, interpretation of Apte, coupled with the teachings of DeTore, *in toto*, teach the use of predictive variables obtained from external data sources to generate an independently weighted multivariate statistical model (See Apte: col. 6, line45-col. 7, line 23). Lastly, Examiner respectfully submits that the use of various statistical techniques, such as multivariate models, independently weighted multivariate models, univariate models, scaling, regression analyses, etc. are notoriously well known and obvious and have been utilized by insurance artisans prior to Applicant's invention. As such, the aforementioned features claimed by Applicant are deemed insufficient to substantively distinguish Applicant's claimed invention over the prior art.

Moreover, Examiner respectfully submits that a broad, yet reasonable, interpretation of Apte, coupled with the teachings of DeTore and knowledge available to a skilled artisan, in toto, teach the aforementioned features claimed by Applicant, as previously mentioned in the previous office action.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited but not used prior art teach a method of evaluating a

permanent life insurance policy (6,456,979); a life insurance method and system

(5,752,236); a computerized insurance premium quote request and policy issuance

system (4,831,526); a method for accessing and evaluating information for processing

an application for insurance and neural networks (5,809,478); a method for generating

predictive models in a computer system (5,692,107); a method of determining the

premium for and writing a policy insuring against specified weather conditions

(4,766,539); process database entries to provide predictions of future data values

(6,725,210); prediction input (6,473,084); a method and apparatus for rating

geographical areas using meteorological conditions (5,839,113); and an integrated

group insurance information processing and reporting system based upon an

enterprise-wide data structure (5,191,522).

7.   The cited but not applied prior art also includes non-patent literature articles by

Dionne, Georges ("Handbook of Insurance" Copyright 2000. Kluwer Academic

Publishers Group.) and Clapp, John M., Fields, Joseph A., Ghosh, and Chinmoy,

Ghosh. ("An Examination of Profitability In Spatial Markets: The Case of Life Insurance

Agency Locations" Sep 1990. Journal of Risk and Insurance. Vol. 57, Iss. 3.).

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to DILEK B. COBANOGLU whose telephone number is

(571)272-8295. The examiner can normally be reached on 8-4:30.

9.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Christopher L. Gilligan can be reached on 571-272-6770. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

10.   Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. B. C./
Examiner, Art Unit 3626
5/22/2008

/C Luke Gilligan/
Supervisory Patent Examiner, Art Unit 3626